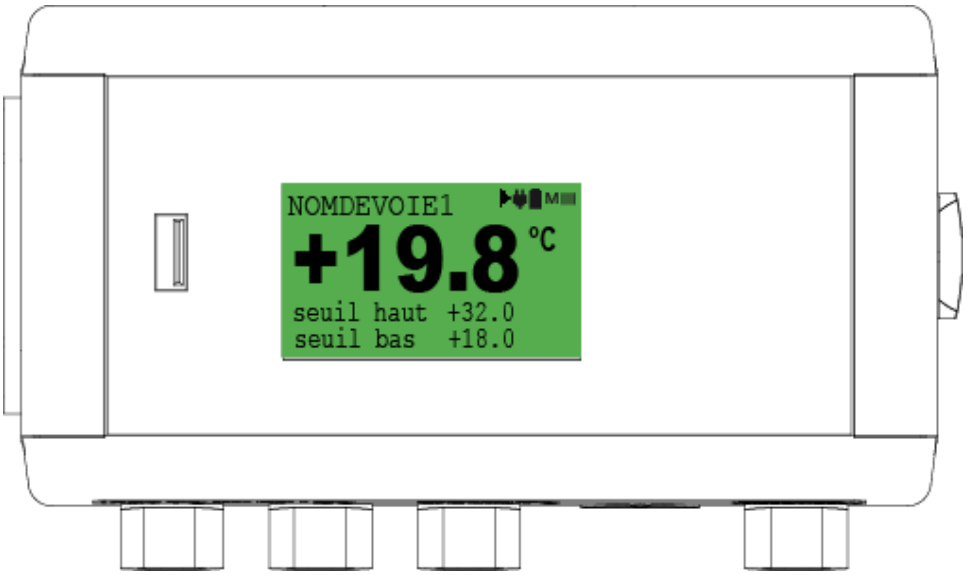
NOTICE D'UTILISATION
USER MANUAL



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JRI Maxant, société par actions simplifiée au capital de 4 000 000 €
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I. PRESENTATION

1) Presentation

You just purchased an innovative and high quality recorder from JRI Maxant's range and we thank you for that.

The device is a T° or T° and RH% recorder with two inputs and able to manage local or remote alarms. Equipped with a color touch sensitive screen, the recorder allows to configure the device and display the information from it. It is also possible to configure the device as well as transferring recorded measurements to a computer equipped with Sirius Lite software thanks to a USB flash drive.

Using the USB flash drive supplied with the device, it is possible to configure the recorder or to upload recorded measurements to a PC to save and manage data with the Sirius software range. In the USB Flash drive you will find a special Sirius Lite Limited Edition dedicated to USB recorders.

The recorder is compatible with Sirius Lite 2.0, Sirius storage 2.1 software used with the RF recorders: SPY RF range.

2) Equipment :

- *1 recorder*
- *1 PT100 sensor depending on the model*
- *1 USB flash drive including :*

  the device user manual,
  the software user manual
  1 Sirius Lite Limited Edition software
  Language files

Make a copy of these files to prevent losing them.

3) Symbols

	RECYCLING: do not throw in a rubbish dump or in a domestic waste container. Comply with the regulation to throw away the device.
220V-240V 50Hz 0.2A	POWER SUPPLY: this device is powered with alternative voltage in 230VAC. Comply with the security and utilization regulations of electric power. Use an electric installation complying to these regulations
CE	CE MARKING: this equipment is certified to comply with the European regulation for the electric security, inflammability, disturbing radiation emission and immunity to surrounding electric disturbances.
	INTERNAL FUSE: 0.25A. Cut off power L250V

4) Technical features

Designation	USB recorder U without sensor	USB recorder U with sensor	USB recorder N
Measurement range	-196 to +184°C -320.8°F to +363.2°F	-55 to +120°C -67°F to +248°F	T°: -55 to+ 80°C / TH : -30 to+70°C / 0 to 100%RH non condensed T°: -67°F to +176°F and TH : -22°F to +158°F / 0 to 100%RH
Accuracy	±0.2°C full range + sensor MPE ±0.36°F Full range + sensor MPE	±0.3°C from -20 to 50°C / ±0.5°C outside ±0.6°F from -4 to 122°F / ±0.9°F outside	T: ±0,3°C from -20 to +30°C & ±0,5 outside T: ±0.6°F from -4 to 86°C / ±0.9°F outside RH: ±2%RH from 0 to 90%HR, ±3% above
Rated operating conditions	+5°C to +40°C (+41°F to 104°F) & from 0 to 80% RH		
Resolution	0,1°C		
Inputs	PT100 + On or Off	Flat cable PT100 connected and adjusted + On or Off	1 Digital T +On or Off 2 Digital T (without On or Off) 1 Digital T and 1Digital RH (without On or Off)
Output	Relay dry contact 30V~CAT I		
Power supply	Main power supply 220V-240V 50Hz 0.2A Maximum voltage switching 300V CAT II		
Power backup	Battery life : 6H		
Interval of measurement	10s to 120min		
Memory	40000 data per input		
Alarm	Sound and visual		
Dimensions	161x84x60mm		
Protection degree	IP 20		
Conformity	EN 12830		
Storage and transportation conditions	-15°C to 60°C (5°F to 140°F) and 0 to 80% RH		
Max height of use	< 2000m		

5) Connecting sensors

Connection or opening the device must be done by a technical with electrical ability

It is absolutely necessary to cut the main power supply of the device before connecting the output.

If the cutting system is a plug, it must be accessible. Otherwise a cutting system must be installed close to the device (circuit breaker with 1A 250VAC 50Hz cutting power.

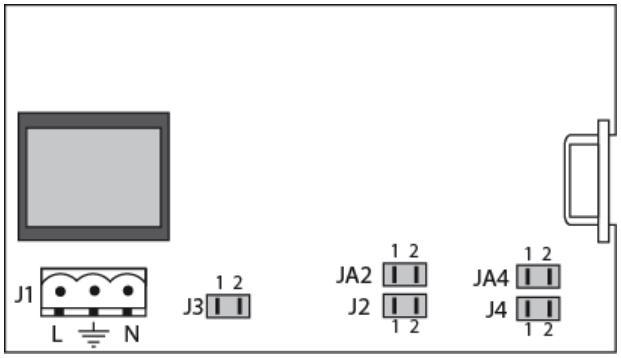
a) ***Descriptive***

b) ***Types of inputs***

Voies / Produit	1	2
USB Recorder U	PT100 PT100	- TOR (NO ou NF)
USB recorder N	T digiat sensor TH digital sensor T digital sensor	T digital sensor - TOR (NO ou NF)

NO= normally open NC= normally closed

c) *Wiring plan*

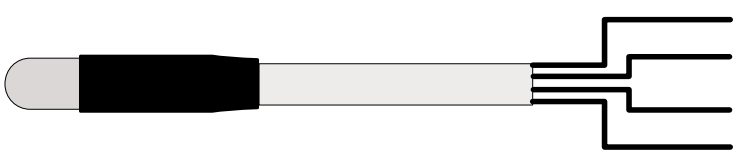


Channel 1 = J4 – JA4
Channel 2 = J2 – JA2
Relay = J3

d) *PT100 sensor*

White	J4-1	V IN +
Red	J4-2	V IN -
Red	JA4-2	0 V

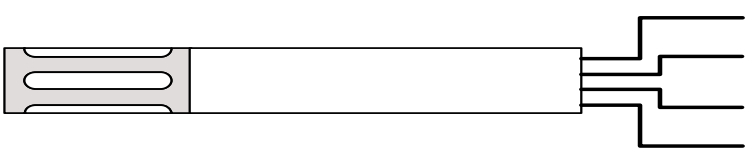
e) *Digital temperature sensor*



Blue	J4-1	SCL
White	J4-2	SDA
Yellow	JA4-1	3.3V
Red	JA4-2	0V

It is possible to connect a digital temperature sensor on the channel 2 only if there is no digital TH sensor on channel 1

f) *Digital RH sensor*



Blue	J4-1	SCL
White	J4-2	SDA
Yellow	JA4-1	3.3V
Red	JA4-2	0V

g) *Switch sensor*

J2-1	RD7
J2-2	RD6
JA2-2	0V

h) *Relay output*

The recorder is equipped with a relay output to send remote alarms
Contact characteristics:

Maximum switching voltage 30VDC
Maximum switching current: DC: 1A
DC: 0.5 A L/R=7ms
Minimum admissible: 0.01mA for 10mVDC

i) ***Power supply:***

A 1A 250V cut out is necessary on the 230VAC 50 Hz power supply of the device.

j) ***Power supply backup:***

The battery allows to power the device if the main power supply shuts down. This battery is an alkaline 9V (6LR61). The Battery life is around 6h in normal data logging conditions.
To prevent losing data it is recommended to change the battery:

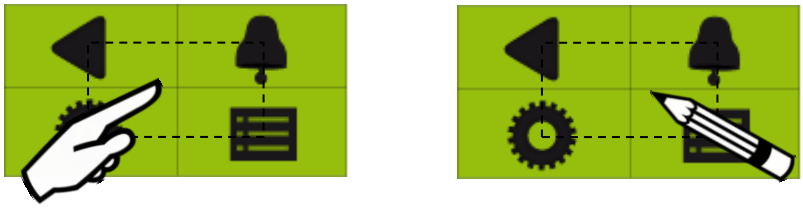
- When the main power supply is ON
- When the device indicates that the battery is empty
- When the limit date of using the battery is over

When the device is powered by the battery, acknowledge the alarms as soon as possible and remove the USB flash drive from the device.

ll. DEVICE USE

1) Principle

The recorder is equipped with a touch sensitive screen. To configure the recorder or consult the measurements it is enough to touch the screen with the finger or a pen point on the desired area to switch from one choice to another.
The screen is divided into 4 different areas



The most sensible part of the screen is close to the center (inside the dotted line).

It is not necessary to press strongly on the screen, especially with a pencil, not to damage it.

2) Symbols meaning

Back to main screen / Back to previous screen

Configuration

Alarm setting

History

Profile choice

Choice Selection / next letter or number

Choice Selection / previous letter or number

Validation

Stop sound alarm

Recording in progress (visible 3 sec at each measurement interval)

Device powered (main supply)

Device under battery backup (Backlight is off to save battery)

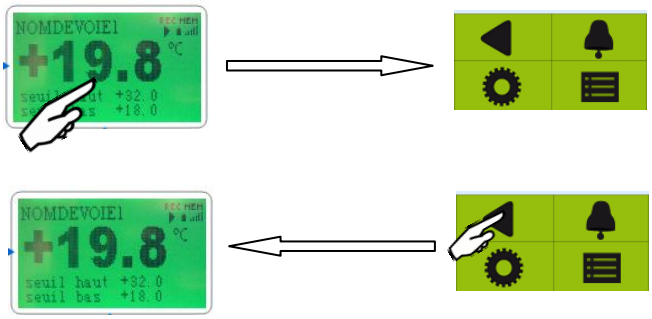
Battery Level

Memory filling up

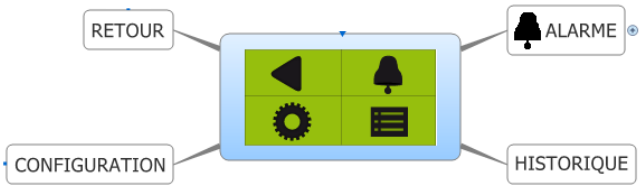
3) Use

Reminder: the recorder has no key board, touch the screen to go through the menu and make a choice

k) *Access to the configuration menu*



l) *Configuration Menu*

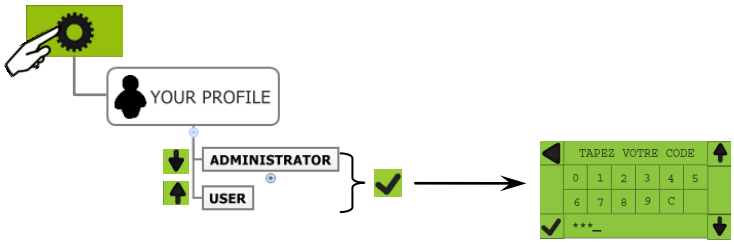


To access to the choices press the relevant icon

m) *Access Code*

The recorder is protected by two access levels:
Administrator access : 1111
User access : 0000

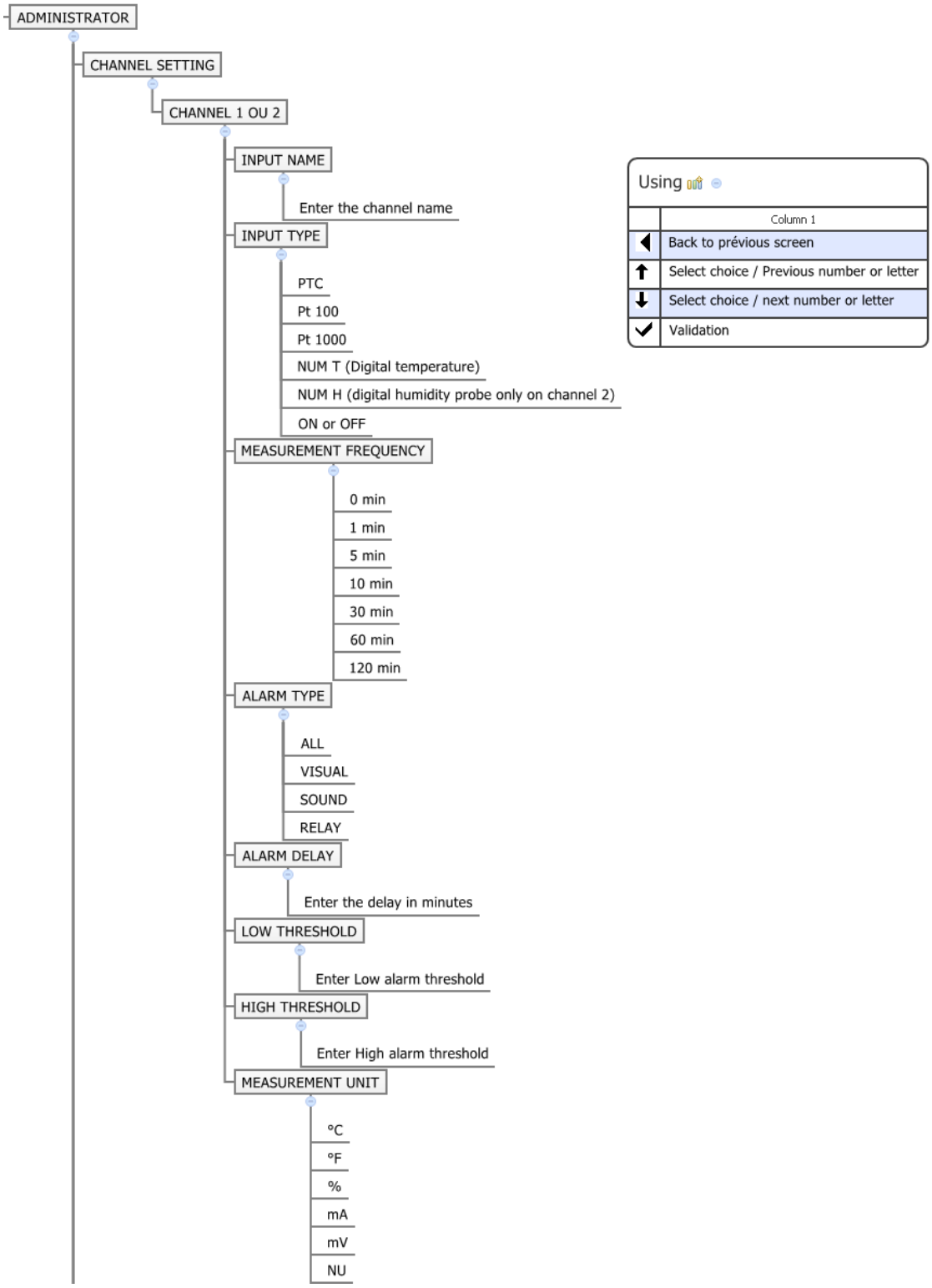
n) *Configuration*

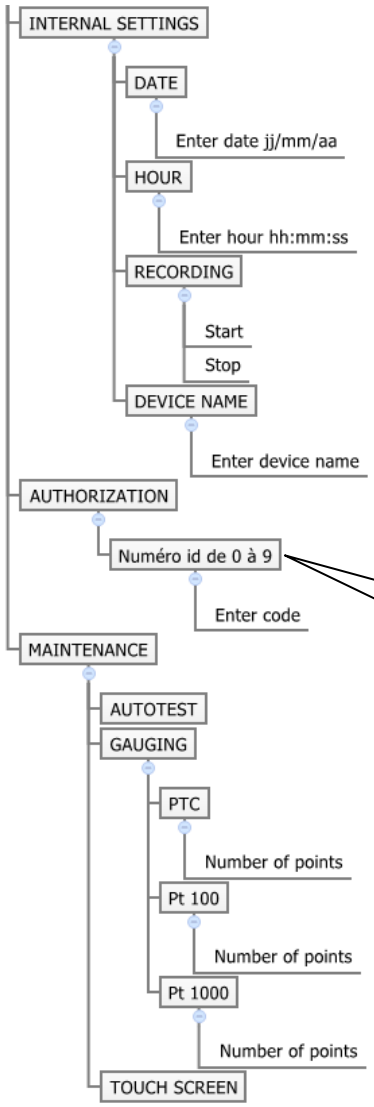


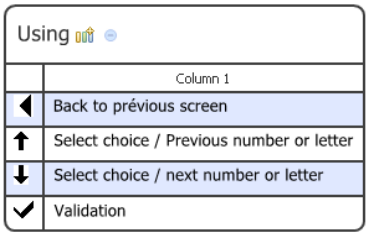
To enter the code choose the number using the arrows and validate digit by digit.

➢ *Administrator mode*

The configuration of the recorder is only possible using administrator rights



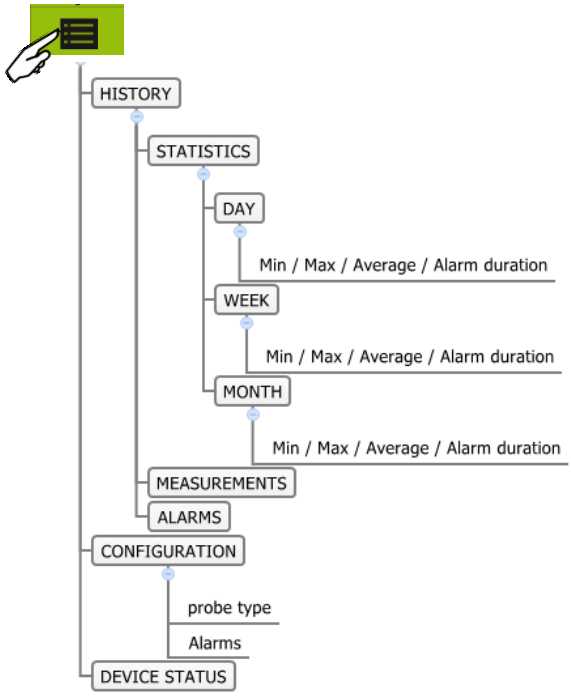


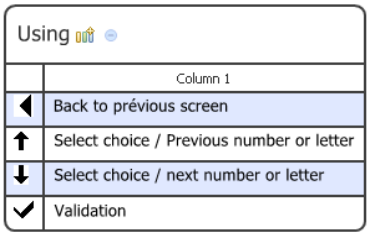


The administrator can create 10 different users (id=0 to 9). He can define 3 administrator profiles and 7 user profiles. This allows tracing acknowledgement in Sirius

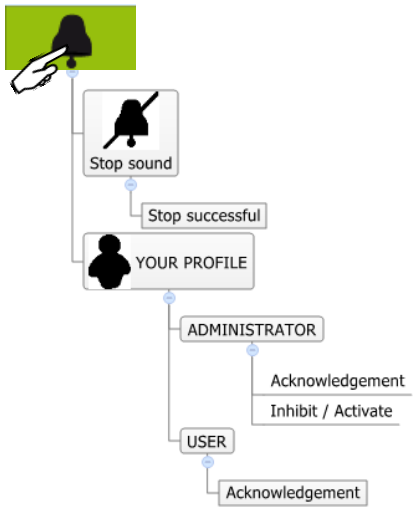
o) ***History of measurements***

History of measurement is accessible without any password





lll. ALARM MANAGEMENT



Using	
	Column 1
◀	Back to prévious screen
↑	Select choice / Previous number or letter
↓	Select choice / next number or letter
✓	Validation

1) Alarm working

The Recorder manages two types of alarms:

Threshold alarms

Technical alarms

A color code is dedicated to each alarm types:

Red = Alarm following a threshold overstep

Yellow = Alarm following Technical alarm release.

The other colors of screen backlight are:

Green = Temperature OK / Normal status / visual alarm activated

Blue = alarms inhibited

Violet = Alarm delay in progress

White = No alarm programmed or no visual alarm programmed

2) Threshold alarm management

Glossary

HT : High Threshold

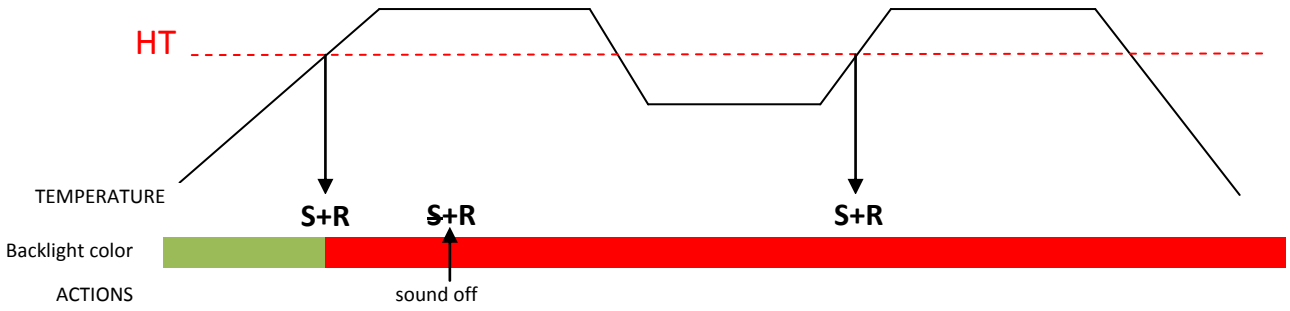
S : Sound — ~~**S**~~ : Sound off

R : Relay — ~~**R**~~ : Relay off

a) ***Stop buzzer***

- *Threshold overstep*

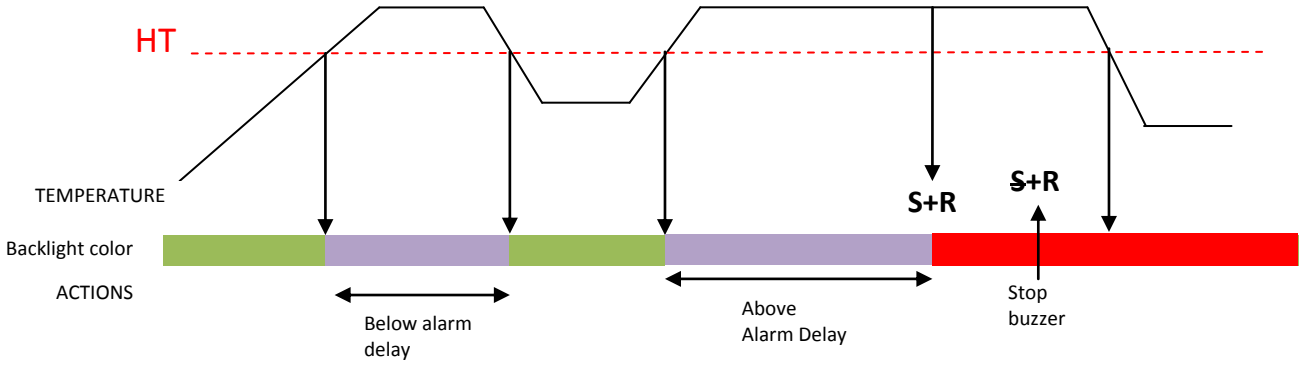
The 3 alarms are activated: visual (backlight on), sound (buzzer on), and Relay



Conclusions :
The buzzer stops after pressing , but turns on again if the temperature oversteps the threshold again.
It is the same for the low threshold.

- *Delayed alarm*

The 3 alarms are activated: visual (backlight on), sound (buzzer on), and Relay
The delay of alarm is programmable through the configuration menu from 0 to 90 minutes
.

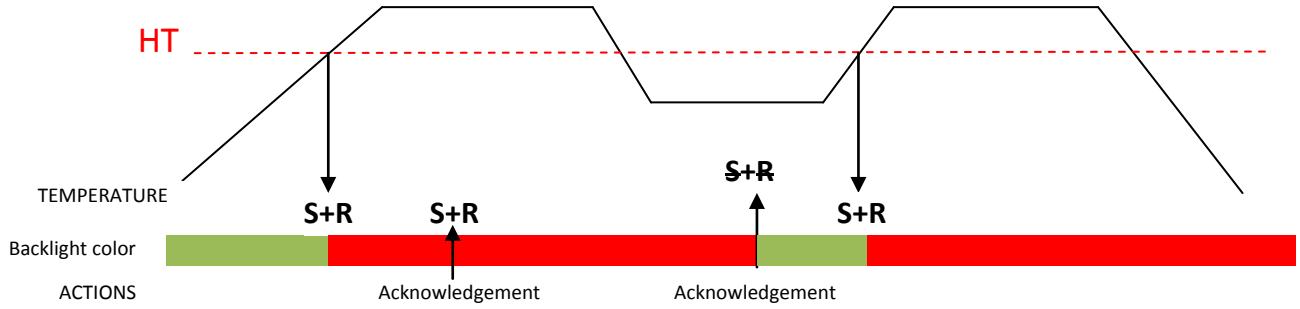


Conclusions:
The Alarm delay is identified by a violet backlight color (no sound, no relay). After an acknowledgement, the backlight turns to green less than 1 second if the temperature is still above the high threshold..
It is the same for the low threshold.

b) *Acknowledgement*

- *Threshold overstep*

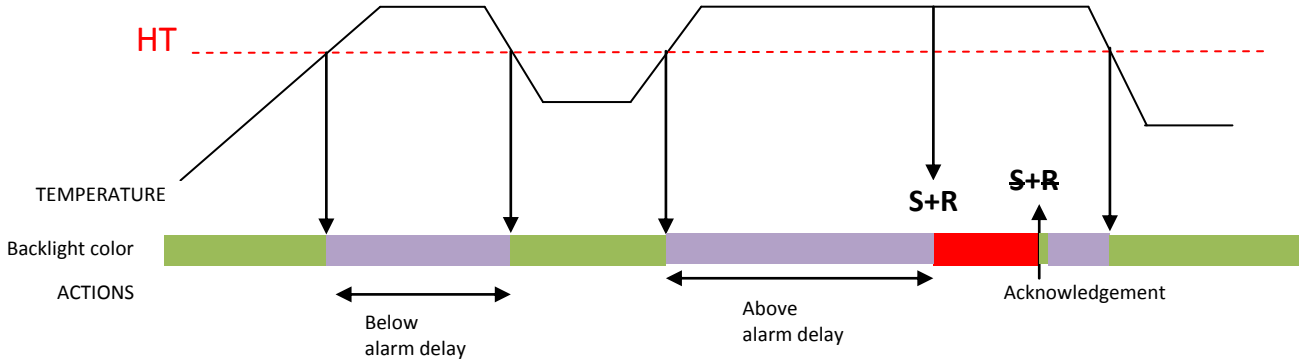
The 3 alarms are activated : visual (backlight on), sound (buzzer on), and Relay



Conclusions:
After the acknowledgement, the recorder comes back to normal but only if the problem has been corrected and the temperature has returned below the high threshold.
It is the same for the low threshold.

➢ *Delayed alarms*

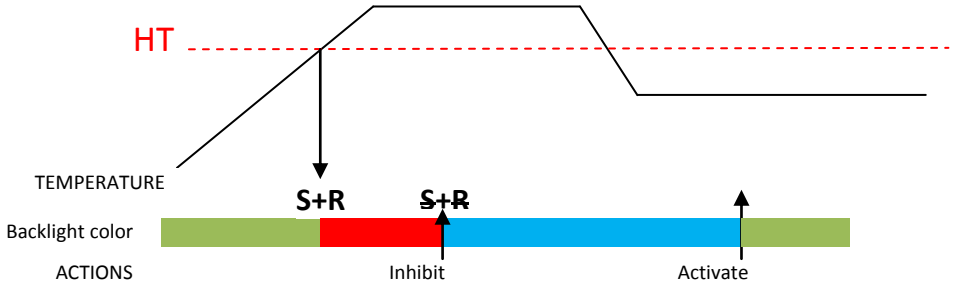
The 3 alarms are activated: visual (backlight on), sound (buzzer on), and Relay
The delay of alarm is programmable through the configuration menu from 0 to 90 minutes



Conclusions:
The Alarm delay is identified by a violet backlight color (no sound, no relay). After an acknowledgement, the backlight turns to green less than 1 second if the temperature is still above the high threshold.
It is the same for the low threshold.

c) ***Inhibit***

The 3 alarms are activated: visual (backlight on), sound (buzzer on) and Relay



Conclusions:
Inhibit stops all the activated alarms. Activation must be done to restore normal settings and remove alarm inhibitions.
It is the same for the low threshold.

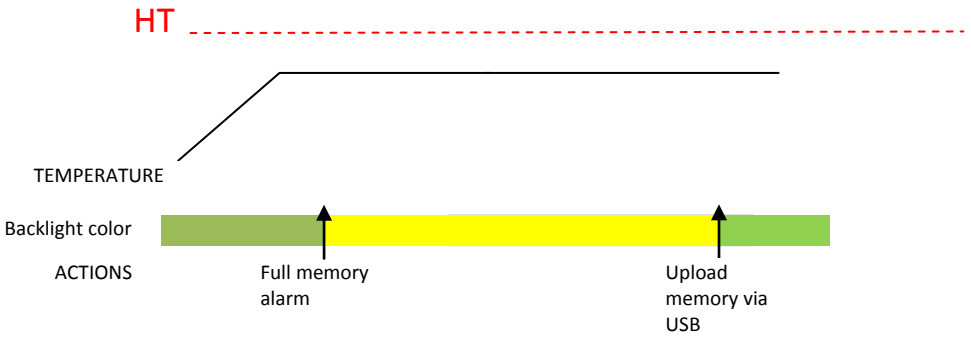
3) Technical alarm

The 3 alarms are activated: visual (backlight on), sound (buzzer on) and Relay
Technical alarms are:

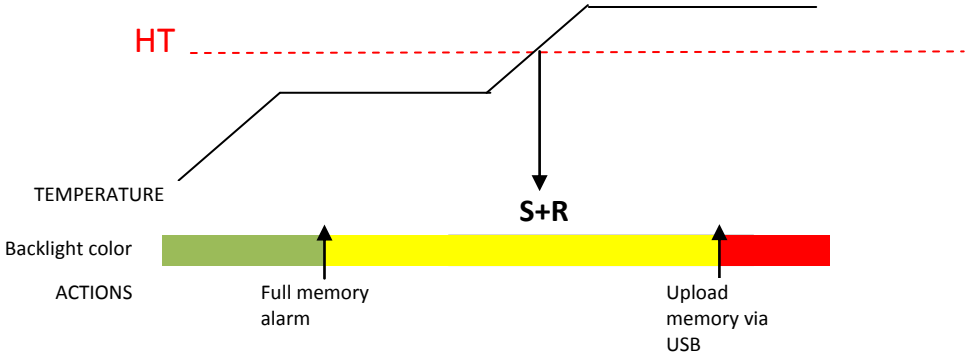
NO_SENSOR_CH1
NO_SENSOR_CH2
BATTERY_ALARM
FULL_MEM_ALARM
PARAM_TAB_DEFAULT
NO_GAUGING
MEMORY_FAILURE

Alarm management for no sensor on ch1 or 2, full memory, no gauging and memory failure alarms:

➢ *Normal case*

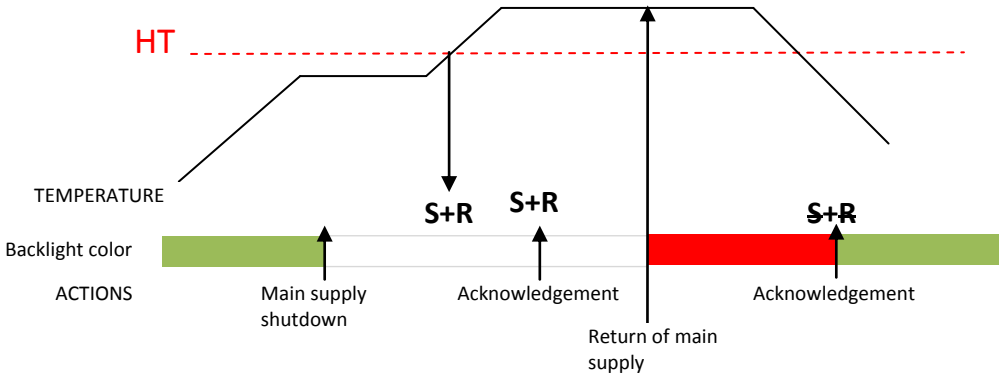


➢ *Case of alarm temperature during technical alarm*



Conclusions:
Priority is given to technical alarms and is deleted only if the reason of alarm has disappeared.
In the example of full memory alarm the yellow backlight will change when the memory has been uploaded.
It is the same for the low threshold.

4) Main power supply alarm :



Conclusions:
For the power supply alarm, the backlight turns off to save the battery backup energy but the sound and relay alarms run correctly.
It is the same for the low threshold.

IV. START AND STOP RECORDING

To start or stop recording of measurements, go through “Configuration…Internal settings” then select start or stop recording.

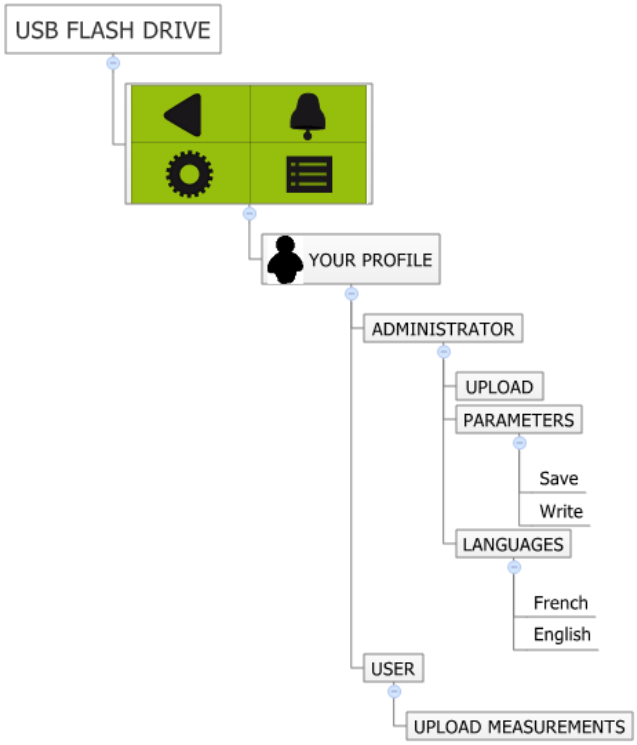
V. CLEANING

The device can be cleaned with a dry duster. Do not humidify the device.

VI. USB FLASH DRIVE

The USB flash drive is a peripheral allowing to configure the device, to upload the memory, and to perform other operations like changing the language of the device menu. The different possibilities are accessible using a password.
To configure the Spy TouchH using the USB flash drive it must be equipped with Sirius Lite (Limited Edition stored in the Flash drive, Sirius Lite 2.0 or Sirius storage 2.0).

5) USB flash drive menu



Note : If an error code appears on the screen during flash drive use, then try the following operations :
Check that it is not full. In this case download the files with Sirius Lite Limited Edition and try again
If it is not full then replace the USB flash drive and try again

JRI - Maxant

FICHE D'APTITIDE A L'EMPLOI SELON LA NORME 12830

Capacity of operation compliant to EN12830

Modèle / *model*: **SPY TOUCH**
Type de matériel / *equipment type* : **enregistreur de température** / *temperature recorder*
Utilisation / *application*: **stockage** / *storage*
Classe de précision / *accuracy class*: **1**

Tableaux des essais / *Test table*

Essais	§ norme	Caract.	Documents ou rapports d'essais
Détermination de l'erreur de la mesure de la température.	5.3	±1°C	Procès verbal d'essais JRI REMTF10003 du 04/06/2010
Détermination du temps de réponse.	5.4	56 sec	Procès verbal d'essais JRI REMTF10003 du 04/06/2010
Détermination de l'erreur relative de l'enregistrement du temps.	5.5	0.004%	Procès verbal d'essais JRI REMTF10003 du 04/06/2010
Variation de la tension d'alimentation. Enregistreur soumis aux températures assignées	5.6.2	230Volts +10 % - -15%	Procès verbal d'essais JRI RECC09025 du 17/09/2009
Influence de la température ambiante. Enregistreur soumis aux températures limites	5.6.3.3	+5°C à +40°C	Procès verbal d'essais JRI REMTF10003 du 04/06/2010
Essai de température avec l'enregistreur en condition de stockage et de transport.	5.6.4	-20°C à +60°C	Procès verbal d'essais JRI REMTF10003 du 04/06/2010
Résistance aux chocs.	5.6.5	N/A	
Vibrations mécaniques.	5.6.6	N/A	
Degrés de protection procurés par l'enveloppe.	5.6.7	IP20 EN 60529	Procès verbal d'essais JRI RECC10007 du 07/06/2010
Sécurité électrique	5.6.8	EN61010-1 Ed 2001	Rapport d'essais EMITECH RL09101569-01-A
Rigidité diélectrique.	5.6.9	N.A.	
Compatibilité électromagnétique.	-	EN61000-6-1 EN61000-6-3 Ed 2007	Rapport d'essai CEM EUROCEM : RE-09-70259-1/A du 28/01/2010

Pour JRI Maxant
Le Directeur Technique et Qualité :
Technical and quality manager

Date : 05/07/2010
date

JRI Maxant, société par actions simplifiée au capital de 4 000 000 €
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SIRET 380 332 858 00014 - APE 2651B - TVA FR 02 380 332 858

VIII. WARRANTY

JRI Maxant products carry a one year warranty and guarantee against defects in their components or workmanship.
During this period if any product supplied by the Company proves on inspection to be defective, the Company will at its own option replace the same or refund to the Buyer the price of the product.
In no circumstances will JRI Maxant' liability exceed the price of the product paid by the buyer or the cost of replacement.
JRI Maxant shall not in any event be liable to the Buyer for any indirect or consequential loss or damage costs or expenses whatsoever which might arise out of or in connection with the supply of the product or its consequent use.
Consequently, the products warrantee and guarantee specified above, does not cover damage caused by fair wear and tear, abnormal storage conditions, incorrect use, accidental misuse, abuse, neglect, misapplication or modification, or use with non-JRI Maxant' hardware/software. No warranty of fitness for a particular purpose is offered and the user assumes the entire risk of using the product.
In line with our policy of continuous development, we reserve the right to amend our product specification without prior notice.

IX. ENVIRONMENT PROTECTION

JRI Maxant recommends to our customers to throw away their measuring and recording devices which are unserviceable and/or beyond repair in a way that is appropriate to environment protection. Insofar as the production of waste cannot be avoided, it is best to re-use them by proceeding with adapted recycling depending on the material used and considering the environment protection.
RoHS Directive
The ROHS European Directive rules and limits the presence of hazardous substances in electrical and electronic equipments (EEE).
In the article 2, the scope of this Directive excludes "9. Monitoring and Control Instruments" and our products are part of this category.
Nevertheless, our company has decided to apply the whole dispositions of this Directive for all our new electronic devices which will comply to this 2002/95/CE Directive.